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Model #: SU20K3/3XR5

SmartOnline 3-Phase UPS System - 3-Phase on-line, double-conversion protection for mission critical applications

Highlights

- 20,000 VA (20kVA) EXTENDED RUNTIME tower UPS with internal batteries
- Saves valuable space: power and battery components combined into a single small-footprint module
- Simplifies runtime scalability: convenient front-panel battery access for expandable runtime with additional internal battery packs
- 3-phase hardwire input and output (120/208VAC). Wide input voltage correction range (88 - 144V AC / 166 - 250V AC)
- IGBT technology and zero transfer time, on-line, double-conversion operation
- 3 communication ports, SNMP card slot and EPO jack

Description

Tripp Lite's SU20K3/3XR5 20kVA SmartOnline 3-Phase Intelligent, True On-Line Extended Runtime UPS System has been redesigned to save valuable space and simplify runtime scalability. Power and battery components are combined into a single, small-footprint module (the smallest in its class). A robust internal battery runtime capability can be easily extended by installing additional optional internal battery packs through the convenient front panel access door. The SU20K3/3XR5 features a large internal battery compartment that contains more internal batteries than the equivalent standard-run model (SU20K3/3) and more space to add additional optional internal battery packs to extend runtime.

The SU20K3/3XR5 provides mission-critical equipment with the highest level of power protection available. Large capacity 20,000VA/16,000 watt UPS continually converts incoming AC power into filtered DC power, and then resynthesizes it back into AC power with a pure sine wave. Perfectly regulated, continuous sine wave output with zero transfer time offers compatibility with all equipment types. IGBT inverter technology produces output power with <3% THD (total harmonic distortion), allowing connected equipment to perform at its peak. A 3:1 crest factor safely supports a variety of equipment, even those with wildly-fluctuating power demands. Extremely efficient operation saves money by lowering electricity consumption. Hardwire input and output connections support a variety of permanent or PDU style power connections. SU20K3/3XR5 features 120/208V AC, 3-phase, 4-wire (plus ground), wye input and output. It also features a wide input voltage correction range: 88-144/166-250V AC. Frequency is 50 or 60 Hz (auto-selectable). SU20K3/3XR5 includes internal power and battery components in a single small-footprint tower module. Battery support can be extended with additional internal battery packs. A manual bypass switch as well as an automatic bypass function ensure 100% availability of connected equipment by safely passing through AC power when the UPS requires maintenance. Three built-in communication ports (RS-232, contact closure and AS-400) work with included PowerAlert Software to simultaneously provide shutdown commands and reporting on multiple servers without the need for costly accessories. An accessory slot accepts an optional internal SNMP card (model # SNMPWEBCARD) for remote shutdowns, reboots and more. A Battery Start Switch allows cold restart of UPS during a prolonged blackout to utilize its batteries for periodic system access or data retrieval. An Emergency Power Off button turns UPS output OFF and disables Bypass output. Built-in Emergency Power Off (EPO) interface supports remote emergency shutdown in large facilities. Front panel combination LCD/LED display alerts users to a variety of UPS operational modes and conditions. A 1-year limited repair warranty is included. A start-up service program is recommended to enhance the reliability of the installation.

Applications

- Ideal for protecting critical 120/208V equipment in computing, networking or telecommunications environments.

Package Includes

- SU20K3/3XR5 UPS System (power and battery components in one module)
- PowerAlert Software and cabling
- Warranty information
- Instruction manual

Features

- Large internal battery compartment contains more internal batteries than the equivalent standard-run model (SU20K3/3) and more space to add additional optional internal battery packs to extend runtime.
- Saves valuable space: power and battery components combined into a single small-footprint module
- Simplifies runtime scalability: convenient front-panel battery access for expandable runtime with additional internal battery packs
- True on-line, double conversion UPS with IGBT technology provides pure, sine wave AC output at all times
- Maintains continuous operation through blackouts, voltage fluctuations and surges with zero transfer time
- Removes harmonic distortion, electrical impulses, frequency variations and other hard-to-solve power problems
- 20,000VA/16,000 watt power capacity with 3-phase, hardwire 120/208V AC input/output connections
- Features a wide input voltage correction range: 88 - 144/166 - 250V AC
- Included internal batteries provide 42 minutes runtime at half load (8,000 watts) and 17 minutes runtime at full load (16,000 watts)
- 3:1 crest factor safely supports a variety of equipment, even those with wildly-fluctuating power demands
- Extend runtime by installing optional internal battery packs (model # SURBC2030) through the front panel access door. SU20K3/3XR5 includes 5 internal battery packs and accepts 3 additional internal battery packs. A standalone battery module compartment with a 4 battery pack capacity and daisy-chain capability (model # SUBF2030) is available to further extend runtime.
- 3 communication ports (RS-232, contact closure and AS-400)
- Slot for optional SNMP card (model # SNMPWEBCARD)
- Manual bypass switch as well as an automatic bypass function ensures 100% availability of connected equipment by safely passing through AC power when the UPS system requires maintenance
- Battery Start Switch allows cold restart of UPS during a prolonged blackout to utilize its batteries for periodic system access or data retrieval
- Emergency Power Off button turns UPS output OFF and disables Bypass output
- PowerAlert Universal UPS Power Management Software and 6 ft. communication cable included
- 1-year limited repair warranty
- Start-up service program is recommended to enhance the reliability of the installation
- Built-in Emergency Power Off (EPO) interface supports remote emergency shutdown in large facilities
- Combination LED/LCD display

Specifications

SYSTEM OVERVIEW	
Voltage compatibility	120/208V AC, 3-phase, 4-wire (plus ground), wye
Frequency compatibility	50/60 Hz (auto-selectable)
OUTPUT	
Output VA	20,000 (20kVA)
Output watts	16,000
Output nominal voltage	120/208V AC, 3-phase, 4-wire (plus ground), wye
Output voltage regulation	Maintains pure sine wave output at all times, regulated within 2% of nominal output voltage, less than 3% total harmonic distortion (using IGBT Inverter)
Output frequency regulation	Regulates line frequency at 50 or 60 Hz, +/- 3 Hz
Outlet quantity / type	Hardwire
INPUT	
Maximum input amps	60A (per phase, online)
Input connection type	Hardwire

Recommended Electrical Service	120/208V AC (3-Phase, 4 Wire, wye)
BATTERY	
Full load runtime	Included internal batteries: 17 min. (16,000 watts). Runtime can be extended with additional internal battery packs (model # SURBC2030).
Half load runtime	Included internal batteries: 42 min. (8,000 watts). Runtime can be extended with additional internal battery packs (model # SURBC2030).
Expandable battery runtime	Supports extended runtime with optional internal battery packs (model # SURBC2030). Accepts 3 additional internal battery packs. Standalone external battery module (SUBF2030) also available.
DC system voltage	240V DC
Typical battery lifespan	3 - 6 years, depending on usage
Battery recharge rate	2 - 4 hours to 90%
VOLTAGE REGULATION	
Voltage regulation description	On-line, double-conversion process gives this UPS the ability to maintain output voltage within +/-2% of nominal voltage at all times
Overvoltage correction	Maintains continuous operation without using battery power during overvoltages to 144 / 250V AC (3-Phase, 4-Wire, wye), reducing output within 2% of nominal
Brownout correction	Maintains continuous operation without using battery power during brownout / undervoltage conditions to 88 / 166V AC (3-Phase, 4-Wire, wye)
LEDS ALARMS & SWITCHES	
Front panel LEDs	7 LED DISPLAY: AC input, bypass input, AC-DC charger, DC-AC inverter, AC output, bypass operation and battery operation. SELECTABLE LCD DISPLAY: indicates a wide range of UPS operational and fault/warning conditions including operational mode, alarm/shutdown conditions, input/output voltage/frequency, battery voltage, load percentage and more.
Alarms	Alarms warn against a variety of operational conditions: low battery, overload, shutdown, bypass and more
Switches	"ON" button turns UPS's inverter ON. "OFF" button turns UPS's inverter OFF. "Select" Button browses through items displayed on LCD screen. "Enter" button selects items displayed on LCD screen. "Select" and "Enter" buttons used simultaneously mute UPS alarms. "Battery Start" Switch cold starts the inverter. "Emergency Power Off" button turns UPS output OFF and disables Bypass output. "Manual Bypass" switch bypasses the UPS's inverter during maintenance.
SURGE / NOISE SUPPRESSION	
AC surge suppression	480 joules
AC suppression response time	Instantaneous
EMI / RFI AC noise suppression	Yes
PHYSICAL	
Shipping weight (lbs)	1152
Shipping weight (kg)	523
Shipping Dimensions (HWD/in)	61.5 x 31 x 44.5
Shipping Dimensions (HWD/cm)	156.2 x 78.7 x 113
Unit weight (lbs)	935
Unit weight (kg)	424
Unit Dimensions (HWD/in)	48.5 x 19.3 x 36

Unit Dimensions (HWD/cm)	123.2 x 49 x 91.4
Material of construction	Steel
Form factors supported	Tower
Cooling method	Built-in cooling fans
Battery Access	Front panel internal battery access
ENVIRONMENTAL	
Relative Humidity	5 to 95%, non-condensing
Storage Temperature	-36 to +104 degrees Fahrenheit / -20 to +40 degrees Celsius
Operating Temperature	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
COMMUNICATIONS	
Network monitoring port	Includes 3 built-in communications ports (RS-232, contact closure and AS-400)
Software and cabling included	Includes PowerAlert UPS monitoring software for all common network and standalone operating systems. Cabling included.
SNMP compatibility	Built-in accessory slot accommodates internal SNMP card (model # SNMPWEBCARD) and other network accessories
LINE / BATTERY TRANSFER	
Transfer time from line power to battery mode	Zero transfer time. True on-line UPS continuously converts incoming AC to DC, then back to AC. When line power is interrupted, UPS maintains continuous output from battery reserves with absolutely no disruption in output AC power.
Low voltage transfer to battery power	Maintains continuous operation during undervoltages as low as 88 / 166V AC (3-Phase, 4-Wire, wye). Below this point, output is maintained utilizing battery reserves.
High voltage transfer to battery power	Maintains continuous operation during overvoltages as high as 144 / 250V AC (3-Phase, 4-Wire, wye). Above this point, output is maintained utilizing battery reserves.
SPECIAL FEATURES	
EPO port	Includes dedicated EPO (emergency power off) interface and cabling
Cold Start	Yes, inverter can be cold-started (with use of Battery Start Switch) to enable temporary AC output during a power failure
Appearance	Attractive black steel tower housing
BATTERY PACK ACCESSORY (optional)	
Battery Pack Accessory (optional)	SURBC2030 (optional internal battery pack) and SUBF2030 (optional standalone external battery module)
CERTIFICATIONS	
Certifications	Tested to UL (USA), cUL (Canada), NOM (Mexico), Class A (Emissions)
WARRANTY	
Product Warranty Period	1-year limited repair warranty is included. Start-up service program is recommended.

Related Items

External Battery Frames		
SUBF2030	External Battery Frame for Extended Runtime - Compatible with Select SmartOnline 20kVA & 30kVA 3-Phase UPS System	Qty: [optional]

Internal Battery Pack

SURBC2030	Internal Battery Pack - Compatible with Select SmartOnline 20kVA & 30kVA 3-Phase UPS System	Qty: [optional]

SNMP Accessories		
ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	Qty: [optional]
SNMPWEBCARD	For remote monitoring and control via SNMP, Web or telnet.	Qty: [optional]

Start-Up/Warranty Services		
W05-BW1-247	3-Phase UPS System Start-Up and On-Site Service Programs	Qty: [optional]
W05-BW1-247-1B	3-Phase UPS System Start-Up and On-Site Service Programs	Qty: [optional]
W05-EW1-247	3-Phase UPS System Start-Up and On-Site Service Programs	Qty: [optional]
W05-EW1-247-1B	3-Phase UPS System Start-Up and On-Site Service Programs	Qty: [optional]
W05-SCENH1	3-Phase UPS System- Basic and Premium Warranty Service Contracts	Qty: [optional]
W05-SCENH1-1B	3-Phase UPS System- Basic and Premium Warranty Service Contracts	Qty: [optional]
W05-SCBAS1	3-Phase UPS System- Basic and Premium Warranty Service Contracts	Qty: [optional]
W05-SCBAS1-1B	3-Phase UPS System- Basic and Premium Warranty Service Contracts	Qty: [optional]

UPS Accessories		
SU20KMBPK	3 Breaker Maintenance Bypass Panel - Enables maintenance bypass of Tripp Lite SU20K3/3, SU20K3/3XR5, SU20K3/3X and SU20KX UPS	Qty: [optional]

More information, including related products, owner's manuals, and additional technical specifications, can be found online at www.tripplite.com/en/products/model.cfm?txtModelID=3607.

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